



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 2
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NEW YORK, NY 10007-1866

October 10, 2018

Robert Law, Ph.D.
de maximis, inc.
186 Center Street, Suite 290
Clinton, New Jersey 08809

Re: Administrative Order on Consent, No. CERCLA 02-2007-2009
Diamond Alkali Superfund Site, Operable Unit 4, Lower Passaic River Study Area –
Preparation of Feasibility Study Evaluating Interim Remedy Alternatives

Dear Dr. Law:

This letter summarizes recent discussions between the Environmental Protection Agency (EPA) Region 2 and the Lower Passaic River Cooperating Parties Group (CPG) regarding Operable Unit 4 (OU4) of the Diamond Alkali Site, also known as and referred to henceforth as the Lower Passaic River Study Area (LPRSA), and directs the CPG to prepare a streamlined Feasibility Study (FS) for OU4 evaluating interim remedy alternatives.

The Remedial Investigation (RI) for the LPRSA has provided adequate information indicating that certain sediment areas in the upper nine miles of the LPRSA present an unacceptable risk to human health, likely pose an unacceptable risk to the environment, and act as a source of contamination to the rest of the waterway.

EPA's *Contaminated Sediment Remediation Guidance for Hazardous Waste Sites (2005)* states, "It also may be appropriate to take other early or interim actions, followed by a period of monitoring, before deciding on a final remedy. Early or interim actions are frequently used to prevent human exposure to contaminants or to control sources of sediment contamination." Accordingly, EPA has discussed with the CPG an adaptive management strategy based on an iterative approach to address sediment source areas in the upper nine miles of the LPRSA, while collecting additional information to reduce uncertainties associated with that reach of the river. Throughout these discussions, EPA has reinforced that following an interim remedy, a final decision document would be required that would identify CERCLA-compliant remediation goals and be protective of human health and the environment. EPA has also discussed this approach with the Partner Agencies: New Jersey Department of Environmental Protection (NJDEP), National Oceanic and Atmospheric Association, US Fish and Wildlife Service, and US Army Corps of Engineers, as well as the Lower Passaic River Community Advisory Group (CAG).

On February 28 and March 1, 2018, EPA Region 2 presented the LPRSA RI findings and the interim remedy approach for the upper nine miles of the LPRSA to the Contaminated Sediments Technical Advisory Group (CSTAG). In written comments provided after the meeting, the CSTAG indicated agreement with the central elements of the interim remedy proposal and provided EPA Region 2 with a number of recommendations to consider when developing and implementing the proposed interim remedy.

EPA anticipates that a phased approach to addressing sediments in the upper nine miles of the LPRSA will require more than one decision document. The first decision document will be an interim record of decision (ROD) documenting the selection of a source control interim remedy for the sediments in the upper nine miles of the LPRSA. The interim remedy would be a source control action that would result in a significant reduction of contaminant concentrations in the source areas in the sediment of the upper nine miles, prevent further migration of contaminants, and be a major component of a final remedy for the LPRSA.

The FS for the interim remedy selection should consider a range of post-interim remedy surface weighted average concentrations (SWACs) of 2,3,7,8-TCDD (dioxin) to allow comparative analysis of alternatives through the CERCLA FS evaluation criteria, including modeled projections of sediment recovery rates following interim remedy implementation. One of the objectives of the source control interim remedy alternative should be to achieve a post-interim remedy SWAC of 2,3,7,8-TCDD from river mile (RM) 8.3 to RM 15 of not more than 85 parts per trillion (ppt), approximately an order of magnitude higher than the OU2 (i.e., the lower 8.3 miles of the LPRSA) 2,3,7,8-TCDD sediment remediation goal of 8.3 ppt. EPA expects the FS alternatives for the interim remedy to include at a minimum, alternatives that would achieve a post-interim remedy SWAC of 2,3,7,8-TCDD from RM 8.3 to RM 15 of 65 ppt, 75 ppt, and 85 ppt, also identifying the post-interim remedy SWAC reductions on a percentage basis (to be met upon completion of the interim remedy implementation).

In addition to the three SWAC goals identified above, in order to evaluate the effectiveness of a source control interim remedy it may be necessary for the FS to evaluate alternatives with a less stringent post-remedy SWAC, so that discernable differences between removing varying amounts of source material and removing varying amounts of residual, non-source material can be assessed. The FS for the interim remedy should evaluate alternatives that include these various post-remedy SWACs against the NCP criteria, including the balancing criteria (long-term effectiveness and permanence; reduction of toxicity, mobility or volume through treatment; short-term effectiveness; implementability; and cost). Relative recovery rates for these various post-remedy SWAC concentrations should also be considered in the comparative analysis. The alternatives should be developed to include sediment removal to depths where clean sediments are encountered, where feasible (e.g., areas with relatively shallow depths of contamination where complete removal of source material is feasible and would limit needs for capping, institutional controls, and/or long-term monitoring).

EPA expects to select an interim remedy for sediments in the upper nine miles of the LPRSA that is appropriate with respect to source control. Additional details of the scope and objectives of the

interim remedy alternative will be discussed during the development of the FS. Methods to be used for demonstrating attainment of the post-interim remedy SWAC will be identified during the preparation of the FS and would be included in the Proposed Plan and interim ROD.

Given the current uncertainties associated with the relationship between sediment and fish tissue concentrations, additional data are needed to further refine the models that will inform development of final risk-based cleanup goals that will be included in the final remedy for the LPRSA. The development of models that are required under the current RI/FS order will continue, according to the approved schedule, so that these models will be available for use while the interim remedy is being implemented and during post-interim remedy monitoring. This will allow EPA to evaluate site conditions, assess the recovery of the river, and select a final remedy for the LPRSA that will be memorialized in a subsequent decision document.

EPA anticipates that any remedy selected as an interim remedy will utilize adaptive management principles which will include monitoring requirements, metrics for interim remedy performance, triggers for further action, and steps to be taken to ensure adequate progress toward final risk-based remedial goals.

In accordance with Administrative Settlement Agreement and Order on Consent, CERCLA 02-2007-2009 (AOC), EPA directs the CPG to prepare and submit a draft FS evaluating remedial alternatives for the interim remedy, as described above. The CPG may streamline certain portions of the analysis that are typically included in an FS. Further, EPA requests that the CPG submit an FS Work Plan Addendum that includes the elements of the interim remedy FS and a revised project schedule for the interim remedy FS, including publication of a Proposed Plan and interim ROD. An important benefit of moving forward with an interim remedy is the ability to coordinate such a remedy with the implementation of the remedy selected for the lower 8.3 miles of the LPRSA. EPA requests that the project schedule be submitted within two weeks and the remaining components of the FS Work Plan Addendum be submitted within 30 calendar days of receipt of this letter. Consistent with the AOC, and its role as support agency, NJDEP will participate in the development of documents supporting an interim remedy.

EPA looks forward to working with the CPG on evaluating interim remedy alternatives for the upper nine miles of the LPRSA, and on the continuing data collection and modeling that will inform selection of a final remedy for the LPRSA. If you have any technical concerns or questions, please contact Diane Salkie, the Remedial Project Manager for the site, at 212-637-4370 or Frances Zizila, Assistant Regional Counsel, at 212-637-3135 for legal concerns.

Sincerely,



Michael Sivak, Chief
Passaic, Hackensack and Newark Bay Remediation Branch
Emergency and Remedial Response Division

cc: Steve Maybury, NJDEP